



SEQUENCE LISTING

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<120> Prevention and Treatment of Amyloidogenic Disease

<130> 15270J-004760US

<140> US 09/580,018

<141> 2000-05-26

<150> US 09/322,289

<151> 1999-05-28

<160> 77

<170> PatentIn Ver. 2.1

<210> 1

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:10-mer peptide
from AN1792 sequence (human Abeta42, beta-amyloid
peptide)

<400> 1

Glu Glu Ile Ser Glu Val Lys Met Asp Ala
1 5 10

<210> 2

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:10-mer peptide
from AN1792 sequence (human Abeta42, beta-amyloid
peptide)

<400> 2

Glu Ile Ser Glu Val Lys Met Asp Ala Glu
1 5 10

<210> 3

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:10-mer peptide
from AN1792 sequence (human Abeta42, beta-amyloid
peptide)

<400> 3
Ile Ser Glu Val Lys Met Asp Ala Glu Phe
1 5 10

```
<210> 4
<211> 10
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence:10-mer peptide
      from AN1792 sequence (human Abeta42, beta-amyloid
      peptide)
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<400> 4
Ser Glu Val Lys Met Asp Ala Glu Phe Arg
1 5 10

```
<210> 5
<211> 10
<212> PRT
<213> Artificial Sequence
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<220> Description of Artificial Sequence:10-mer peptide
<223> from AN1792 sequence (human Abeta42, beta-amyloid peptide)

<400> 5
Glu Val Lys Met Asp Ala Glu Phe Arg His
1 5 10

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<210> 6
<211> 10
<212> PRT
<213> Artificial Sequence
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<220> Description of Artificial Sequence:10-mer peptide
<223> from AN1792 sequence (human Abeta42, beta-amyloid
      peptide)
```

```
<400> 6
Val Lys Met Asp Ala Glu Phe Arg His Asp
      1                      5                      10
```

```
<210> 7
<211> 10
<212> PRT
<213> Artificial Sequence
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```
<220>
<223> Description of Artificial Sequence:10-mer peptide
      from AN1792 sequence (human Abeta42, beta-amyloid
      peptide)
```

<400> 7
Lys Met Asp Ala Glu Phe Arg His Asp Ser
1 5 10

```
<210> 8
<211> 10
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence:10-mer peptide
from AN1792 sequence (human Abeta42, beta-amyloid
peptide)

<400> 8
Met Asp Ala Glu Phe Arg His Asp Ser Gly
1 5 10

```
<210> 9
<211> 10
<212> PRT
<213> Artificial Sequence
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```
<220>
<223> Description of Artificial Sequence:10-mer peptide
      from AN1792 sequence (human Abeta42, beta-amyloid
      peptide)
```

<400> 9
Asp Ala Glu Phe Arg His Asp Ser Gly Tyr
1 5 10

```
<210> 10
<211> 10
<212> PRT
<213> Artificial Sequence
```

```
<220>
<223> Description of Artificial Sequence:10-mer peptide
      from AN1792 sequence (human Abeta42, beta-amyloid
      peptide)
```

<400> 10
Ala Glu Phe Arg His Asp Ser Gly Tyr Glu
1 5 10

```
<210> 11
<211> 10
<212> PRT
<213> Artificial Sequence
```

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<220>
<223> Description of Artificial Sequence:10-mer peptide
      from AN1792 sequence (human Abeta42, beta-amyloid
      peptide).
```

<400> 11
Glu Phe Arg His Asp Ser Gly Tyr Glu Val
1 5 10

```
<210> 12
<211> 10
<212> PRT
<213> Artificial Sequence
```

<220>
<223> Description of Artificial Sequence:10-mer peptide
from AN1792 sequence (human Abeta42, beta-amyloid
peptide)

```

<400> 12
Phe Arg His Asp Ser Gly Tyr Glu Val His
  1             5             10

```

```
<210> 13
<211> 10
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence:10-mer peptide
from AN1792 sequence (human Abeta42, beta-amyloid
peptide)

<400> 13
Arg His Asp Ser Gly Tyr Glu Val His His
1 5 10

```
<210> 14
<211> 10
<212> PRT
<213> Artificial Sequence
```

<220>
<223> Description of Artificial Sequence:10-mer peptide
from AN1792 sequence (human Abeta42, beta-amyloid
peptide)

<400> 14
His Asp Ser Gly Tyr Glu Val His His Gln
1 5 10

```
<210> 15
<211> 10
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence:10-mer peptide
from AN1792 sequence (human Abeta42, beta-amyloid
peptide)

<400> 15
 Asp Ser Gly Tyr Glu Val His His Gln Lys
 1 5 10

<210> 16
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:10-mer peptide
 from AN1792 sequence (human Abeta42, beta-amyloid
 peptide)

<400> 16
 Ser Gly Tyr Glu Val His His Gln Lys Leu
 1 5 10

<210> 17
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:10-mer peptide
 from AN1792 sequence (human Abeta42, beta-amyloid
 peptide)

<400> 17
 Gly Tyr Glu Val His His Gln Lys Leu Val
 1 5 10

<210> 18
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:10-mer peptide
 from AN1792 sequence (human Abeta42, beta-amyloid
 peptide)

<400> 18
 Tyr Glu Val His His Gln Lys Leu Val Phe
 1 5 10

<210> 19
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:10-mer peptide
 from AN1792 sequence (human Abeta42, beta-amyloid
 peptide)

B8
 Cont


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<220>
<223> Description of Artificial Sequence:10-mer peptide
      from AN1792 sequence (human Abeta42, beta-amyloid
      peptide)
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B8
Cont

```
<220>
<223> Description of Artificial Sequence:10-mer peptide
      from AN1792 sequence (human Abeta42, beta-amyloid
      peptide)
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B8
Cont

<400> 31
Asp Val Gly Ser Asn Lys Gly Ala Ile Ile
1 5 10

```
<210> 32
<211> 10
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence:10-mer peptide
from AN1792 sequence (human Abeta42, beta-amyloid
peptide)

```
<400> 32
Val Gly Ser Asn Lys Gly Ala Ile Ile Gly
  1                      5                10
```

```
<210> 33
<211> 10
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence:10-mer peptide
from AN1792 sequence (human Abeta42, beta-amyloid
peptide)

<400> 33
Gly Ser Asn Lys Gly Ala Ile Ile Gly Leu
1 5 10

```
<210> 34
<211> 10
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence:10-mer peptide
from AN1792 sequence (human Abeta42, beta-amyloid
peptide)

<400> 34
Ser Asn Lys Gly Ala Ile Ile Gly Leu Met
1 5 10

```
<210> 35
<211> 10
<212> PRT
<213> Artificial Sequence
```

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<220>
<223> Description of Artificial Sequence:10-mer peptide
      from AN1792 sequence (human Abeta42, beta-amyloid
      peptide)
```

<400> 35
 Asn Lys Gly Ala Ile Ile Gly Leu Met Val
 1 5 10

<210> 36
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:10-mer peptide
 from AN1792 sequence (human Abeta42, beta-amyloid
 peptide)

<400> 36
 Lys Gly Ala Ile Ile Gly Leu Met Val Gly
 1 5 10

<210> 37
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:10-mer peptide
 from AN1792 sequence (human Abeta42, beta-amyloid
 peptide)

<400> 37
 Gly Ala Ile Ile Gly Leu Met Val Gly Gly
 1 5 10

<210> 38
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:10-mer peptide
 from AN1792 sequence (human Abeta42, beta-amyloid
 peptide)

<400> 38
 Ala Ile Ile Gly Leu Met Val Gly Gly Val
 1 5 10

<210> 39
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:10-mer peptide
 from AN1792 sequence (human Abeta42, beta-amyloid
 peptide)

BB
 Cont.

```
<210> 40
<211> 10
<212> PRT
<213> Artificial Sequence
```

```
<400> 40
Ile Gly Leu Met Val Gly Gly Val Val Ile
  1                      5                      10
```

```
<210> 41
<211> 10
<212> PRT
<213> Artificial Sequence
```

<220>
<223> Description of Artificial Sequence:10-mer peptide
from AN1792 sequence (human Abeta42, beta-amyloid
peptide)

<400> 41
Gly Leu Met Val Gly Gly Val Val Ile Ala
1 5 10

```
<210> 42
<211> 42
<212> PRT
<213> Homo sapiens
```

<220>
<223> human Abeta42 beta-amyloid peptide

<400> 42
Asp Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln Lys
1 5 10 15

Leu Val Phe Phe Ala Glu Asp Val Gly Ser Asn Lys Gly Ala Ile Ile
20 25 30

Gly Leu Met Val Gly Gly Val Val Ile Ala
35 40

```
<210> 43
<211> 13
<212> PRT
<213> Artificial Sequence
```

B8
cont.

<220>
 <223> Description of Artificial Sequence:influenza
 hemagglutinin HA-307-319 universal T-cell epitope

<400> 43
 Pro Lys Tyr Val Lys Gln Asn Thr Leu Lys Leu Ala Thr
 1 5 10

<210> 44
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:PADRE universal
 T-cell epitope

<220>
 <221> misc_feature
 <222> (3)
 <223> Xaa = Any amino acid

<400> 44
 Ala Lys Xaa Val Ala Ala Trp Thr Leu Lys Ala Ala Ala
 1 5 10

<210> 45
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:malaria CS, T3
 epitope universal T-cell epitope

<400> 45
 Glu Lys Lys Ile Ala Lys Met Glu Lys Ala Ser Ser Val Phe Asn Val
 1 5 10 15

<210> 46
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:hepatitis B
 surface antigen HBsAg-19-28 universal T-cell
 epitope

<400> 46
 Phe Phe Leu Leu Thr Arg Ile Leu Thr Ile
 1 5 10

<210> 47
 <211> 19
 <212> PRT
 <213> Artificial Sequence

88
 cont.

<220>
 <223> Description of Artificial Sequence:heat shock
 protein 65 hsp65-153-171 universal T-cell epitope

<400> 47
 Asp Gln Ser Ile Gly Asp Leu Ile Ala Glu Ala Met Asp Lys Val Gly
 1 5 10 15

Asn Glu Gly

<210> 48
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:bacille
 Calmette-Guerin universal T-cell epitope

<400> 48
 Gln Val His Phe Gln Pro Leu Pro Pro Ala Val Val Lys Leu
 1 5 10

<210> 49
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:tetanus toxoid
 TT-830-844 universal T-cell epitope

<400> 49
 Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu Leu
 1 5 10 15

<210> 50
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:tetanus toxoid
 TT-947-967 universal T-cell epitope

<400> 50
 Phe Asn Asn Phe Thr Val Ser Phe Trp Leu Arg Val Pro Lys Val Ser
 1 5 10 15

Ala Ser His Leu Glu
 20

88
 Cont.

<210> 51
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:HIV gp120 T1
 universal T-cell epitope

<400> 51
 Lys Gln Ile Ile Asn Met Trp Gln Glu Val Gly Lys Ala Met Tyr Ala
 1 5 10 15

<210> 52
 <211> 22
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:AN 90549 Abeta
 1-7/tetanus toxoid 830-844

<400> 52
 Asp Ala Glu Phe Arg His Asp Gln Tyr Ile Lys Ala Asn Ser Lys Phe
 1 5 10 15

Ile Gly Ile Thr Glu Leu
 20

<210> 53
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:AN 90550 Abeta
 1-7/tetanus toxoid 947-967

<400> 53
 Asp Ala Glu Phe Arg His Asp Phe Asn Asn Phe Thr Val Ser Phe Trp
 1 5 10 15

Leu Arg Val Pro Lys Val Ser Ala Ser His Leu Glu
 20 25

<210> 54
 <211> 43
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:AN90542 Abeta
 1-7/tetanus toxoid 830-844 + 947-967

<400> 54
 Asp Ala Glu Phe Arg His Asp Gln Tyr Ile Lys Ala Asn Ser Lys Phe
 1 5 10 15

BB
 Cont

Ile Gly Ile Thr Glu Leu Phe Asn Asn Phe Thr Val Ser Phe Trp Leu
 20 25 30

Arg Val Pro Lys Val Ser Ala Ser His Leu Glu
 35 40

<210> 55
 <211> 22
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:AN 90576 Abeta
 3-9/tetanus toxoid 830-844

<400> 55
 Glu Phe Arg His Asp Ser Gly Gln Tyr Ile Lys Ala Asn Ser Lys Phe
 1 5 10 15

Ile Gly Ile Thr Glu Leu
 20

<210> 56
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:AN90562 Abeta
 1-7/peptide

<220>
 <221> misc_feature
 <222> (3)
 <223> Xaa = any amino acid

<400> 56
 Ala Lys Xaa Val Ala Ala Trp Thr Leu Lys Ala Ala Ala Asp Ala Glu
 1 5 10 15

Phe Arg His Asp
 20

<210> 57
 <211> 34
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:AN90543 Abeta
 1-7 x 3/peptide

<220>
 <221> misc_feature
 <222> (24)
 <223> Xaa = any amino acid

B8
 Cont

<400> 57
 Asp Ala Glu Phe Arg His Asp Asp Ala Glu Phe Arg His Asp Asp Ala
 1 5 10 15

Glu Phe Arg His Asp Ala Lys Xaa Val Ala Ala Trp Thr Leu Lys Ala
 20 25 30

Ala Ala

<210> 58
 <211> 34
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: fusion protein
 with Abeta epitope

<220>
 <221> misc_feature
 <222> (3)
 <223> Xaa = any amino acid

<400> 58
 Ala Lys Xaa Val Ala Ala Trp Thr Leu Lys Ala Ala Ala Asp Ala Glu
 1 5 10 15

Phe Arg His Asp Asp Ala Glu Phe Arg His Asp Asp Ala Glu Phe Arg
 20 25 30

His Asp

<210> 59
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: fusion protein
 with Abeta epitope

<220>
 <221> misc_feature
 <222> (10)
 <223> Xaa = any amino acid

<400> 59
 Asp Ala Glu Phe Arg His Asp Ala Lys Xaa Val Ala Ala Trp Thr Leu
 1 5 10 15

Lys Ala Ala Ala
 20

BB
 Cont

<210> 60
 <211> 24
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:fusion protein
 with Abeta epitope

<400> 60
 Asp Ala Glu Phe Arg His Asp Ile Ser Gln Ala Val His Ala Ala His
 1 5 10 15

Ala Glu Ile Asn Glu Ala Gly Arg
 20

<210> 61
 <211> 24
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:fusion protein
 with Abeta epitope

<400> 61
 Phe Arg His Asp Ser Gly Tyr Ile Ser Gln Ala Val His Ala Ala His
 1 5 10 15

Ala Glu Ile Asn Glu Ala Gly Arg
 20

<210> 62
 <211> 24
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:fusion protein
 with Abeta epitope

<400> 62
 Glu Phe Arg His Asp Ser Gly Ile Ser Gln Ala Val His Ala Ala His
 1 5 10 15

Ala Glu Ile Asn Glu Ala Gly Arg
 20

<210> 63
 <211> 34
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:fusion protein
 with Abeta epitope

B8
 Cont

Phe Arg His Asp Asp Ala Glu Phe Arg His Asp Asp Ala Glu Phe Arg
20 25 30

```
<210> 64
<211> 27
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence:fusion protein
with Abeta epitope

<400> 64
Asp Ala Glu Phe Arg His Asp Pro Lys Tyr Val Lys Gln Asn Thr Leu
1 5 10 15

Lys Leu Ala Thr Asp Ala Glu Phe Arg His Asp
20 25

```
<210> 65
<211> 34
<212> PRT
<213> Artificial Sequence
```

```
<220>
<223> Description of Artificial Sequence:fusion protein
      with Abeta epitope
```

<400> 65
Asp Ala Glu Phe Arg His Asp Asp Ala Glu Phe Arg His Asp Asp Ala
1 5 10 15

Glu Phe Arg His Asp Pro Lys Tyr Val Lys Gln Asn Thr Leu Lys Leu
20 25 30

Ala Thr

```
<210> 66
<211> 27
<212> PRT
<213> Artificial Sequence
```

<220>
<223> Description of Artificial Sequence:fusion protein
with Abeta epitope

<400> 66
Asp Ala Glu Phe Arg His Asp Asp Ala Glu Phe Arg His Asp Pro Lys
1 5 10 15

B
Cont

Tyr Val Lys Gln Asn Thr Leu Lys Leu Ala Thr
20 25

<210> 67
<211> 79
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:fusion protein
with Abeta epitope

<400> 67
Asp Ala Glu Phe Arg His Asp Pro Lys Tyr Val Lys Gln Asn Thr Leu
1 5 10 15
Lys Leu Ala Thr Glu Lys Lys Ile Ala Lys Met Glu Lys Ala Ser Ser
20 25 30
Val Phe Asn Val Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile
35 40 45
Thr Glu Leu Phe Asn Asn Phe Thr Val Ser Phe Trp Leu Arg Val Pro
50 55 60
Lys Val Ser Ala Ser His Leu Glu Asp Ala Glu Phe Arg His Asp
65 70 75

<210> 68
<211> 57
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:fusion protein
with Abeta epitope

B8
Cont
<400> 68
Asp Ala Glu Phe Arg His Asp Asp Ala Glu Phe Arg His Asp Asp Ala
1 5 10 15
Glu Phe Arg His Asp Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly
20 25 30
Ile Thr Glu Leu Phe Asn Asn Phe Thr Val Ser Phe Trp Leu Arg Val
35 40 45
Pro Lys Val Ser Ala Ser His Leu Glu
50 55

<210> 69
<211> 44
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:fusion protein
with Abeta epitope

Leu Arg Val Pro Lys Val Ser Ala Ser His Leu Glu
35 40

<213> Artificial Sequence

```
<220>
<223> Description of Artificial Sequence:fusion protein
      with Abeta epitope
```

Leu Arg Val Pro Lys Val Ser Ala Ser His Leu Glu Asp Ala Glu Phe
35 40 45

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:synuclein
fusion protein

<213> Artificial Sequence

```
<220>
<223> Description of Artificial Sequence:Abeta 1-12
      peptide with inserted Cys residue
```

```
<210> 73
<211> 6
<212> PRT
<213> Artificial Sequence
```

<400> 73
Asp Ala Glu Phe Arg Cys
1 5

<220>
<223> Description of Artificial Sequence: Abeta 33-42
peptide with inserted Cys residue

```
<220>  
<221> MOD_RES  
<222> (2)  
<223> Xaa = amino-heptanoic acid
```

<400> 74
Cys Xaa Gly Leu Met Val Gly Gly Val Val Ile Ala
1 5 10

```
<210> 75
<211> 19
<212> PRT
<213> Artificial Sequence
```

<220>
<223> Description of Artificial Sequence: Abeta 13-28
peptide with two Gly residues added and inserted
Cys residue

```
<220>  
<221> MOD_RES  
<222> (1)  
<223> Xaa = N-acetyl His
```

<400> 75
Xaa His Gln Lys Leu Val Phe Phe Ala Glu Asp Val Gly Ser Asn Lys
1 5 10 15

Gly Gly Cys

B8
Cont.

<210> 76
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:linker

<400> 76
 Glu Gly Glu Gly
 1

<210> 77
 <211> 22
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:fusion protein with Abeta epitope

<400> 77
 Asp Ala Glu Phe Arg His Asp Gln Tyr Ile Lys Ala Asn Ser Lys Phe
 1 5 10 15

Ile Gly Ile Thr Glu Leu
 20
